

Listing of claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-17. (canceled).

18. (withdrawn) A method of detecting *Streptococcus* nucleic acids in a biological sample obtained from an animal involving assaying for one or more nucleic acid sequences encoding *Streptococcus* polypeptides in a sample comprising:

(a) contacting the sample with ~~one or more of the above described nucleic acid probes~~ the isolated polynucleotide of claim 62, under conditions such that hybridization occurs, and

(b) detecting hybridization of said ~~one or more probes~~ polynucleotide to the one or more *Streptococcus* nucleic acid sequences present in the biological sample.

19. (withdrawn) A method of detecting *Streptococcus* nucleic acids in a biological sample obtained from an animal, comprising:

(a) amplifying ~~one or more *Streptococcus* nucleic acid sequences~~ the polynucleotide of SEQ ID NO:65 in said sample using polymerase chain reaction, and

(b) detecting said amplified ~~*Streptococcus* nucleic acid~~ polynucleotide.

20-21 (canceled).

22. (currently amended) An isolated polynucleotide ~~comprising~~ consisting of a nucleic acid sequence encoding an amino acid sequence identical to, except for up to five amino acid alterations per 100 amino acids, the amino acid sequence of SEQ ID NO:66.

23. (currently amended) An isolated polynucleotide ~~comprising~~ consisting of the full complement of the nucleic acid sequence of claim 22.

24. (previously presented) The isolated polynucleotide of claim 22 which encodes the amino acid sequence of SEQ ID NO:66.

25. (currently amended) The isolated polynucleotide of claim 22 which ~~further comprises~~ is fused to a heterologous polynucleotide sequence.

26. (previously presented) The isolated polynucleotide of claim 25, wherein said heterologous polynucleotide sequence encodes a polypeptide.

27. (previously presented) A method of making a recombinant vector comprising inserting the isolated polynucleotide of claim 22 into a vector.

28. (previously presented) A recombinant vector comprising the isolated polynucleotide of claim 22.

29. (previously presented) The recombinant vector of claim 28, wherein said polynucleotide is operably associated with a heterologous regulatory sequence that controls gene expression.

B1 30. (previously presented) A recombinant host cell comprising the isolated polynucleotide of claim 22.

31. (previously presented) The recombinant host cell of claim 30, wherein said polynucleotide is operably associated with a heterologous regulatory sequence that controls gene expression.

32. (previously presented) A method for producing a polypeptide, comprising:
 (a) culturing a recombinant host cell comprising the isolated polynucleotide of claim 22 under conditions suitable to produce a polypeptide encoded by said polynucleotide; and
 (b) recovering the polypeptide.

33. (canceled).

34. (currently amended) An isolated polynucleotide ~~comprising~~ consisting of a nucleic acid sequence encoding an epitope-bearing portion of the amino acid sequence of SEQ ID NO:66.

35. (currently amended) An isolated polynucleotide ~~comprising~~ consisting of a nucleic acid sequence encoding a portion of the amino acid sequence of SEQ ID NO:66 which specifically binds an antibody that specifically binds to a polypeptide consisting of the amino acid sequence of SEQ ID NO:66, wherein said portion comprises an amino acid sequence selected from the group consisting of:

- B1
- (a) Gly-11 to Arg-19;
 - (b) Ile-23 to Lys-31;
 - (c) His-145 to Asn-151;
 - (d) Gln-159 to Asp-166;
 - (e) Ile-175 to Asp-181;
 - (f) Gly-213 to Tyr-225;
 - (g) Ile-283 to Val-291;
 - (h) Pro-329 to Glu-364;
 - (i) Arg-372 to Ser-386;
 - (j) Thr-421 to Phe-430;
 - (k) Leu-445 to Val-453;
 - (l) Ile-486 to Ala-497; and
 - (m) Asp-524 to Ala-535.

36. (previously presented) The isolated polynucleotide of claim 35, wherein said amino acid sequence comprises (a) and (b).

37. (previously presented) The isolated polynucleotide of claim 35, wherein said amino acid sequence comprises (l) and (m).

38. (previously presented) The isolated polynucleotide of claim 35, wherein said amino acid sequence is (h).

39. (previously presented) The isolated polynucleotide of claim 35, wherein said amino acid sequence is (i).

40. (currently amended) The isolated polynucleotide of claim 35 which ~~comprises~~ is fused to a heterologous polynucleotide sequence.

41. (currently amended) The isolated polynucleotide of claim [[41]] 40, wherein said heterologous polynucleotide sequence encodes a polypeptide.

42. (previously presented) A method for making a recombinant vector comprising inserting the isolated polynucleotide of claim 35 into a vector.

43. (previously presented) A recombinant vector comprising the isolated polynucleotide of claim 35.

44. (previously presented) The recombinant vector of claim 43, wherein said polynucleotide is operably associated with a heterologous regulatory sequence that controls gene expression.

45. (previously presented) A recombinant host cell comprising the isolated polynucleotide of claim 35.

46. (previously presented) The recombinant host cell of claim 45, wherein said polynucleotide is operably associated with a heterologous regulatory sequence that controls gene expression.

47. (previously presented) A method for producing a polypeptide, comprising:
(a) culturing a recombinant cell comprising the isolated polynucleotide of claim 35 under conditions suitable to produce a polypeptide encoded by said polynucleotide;
and

(b) recovering the polypeptide.

48. (canceled).

49. (currently amended) An isolated polynucleotide ~~comprising~~ consisting of a nucleic acid sequence encoding a portion of SEQ ID NO:66, wherein said portion is at least 9 contiguous amino acid residues of SEQ ID NO:66.

50. (currently amended) The isolated polynucleotide of claim 49 ~~comprising a nucleic acid sequence encoding, wherein said portion is~~ at least 30 contiguous amino acid residues of SEQ ID NO:66.

51. (currently amended) The isolated polynucleotide of claim 50 ~~comprising a nucleic acid sequence encoding, wherein said portion is~~ at least 50 contiguous amino acid residues of SEQ ID NO:66.

52. (currently amended) The isolated polynucleotide of claim [[50]] 51 ~~comprising a nucleic acid sequence encoding, wherein said portion is~~ at least 100 contiguous amino acid residues of SEQ ID NO:66.

B1 53. (currently amended) The isolated polynucleotide of claim [[50]] 49, wherein said polynucleotide ~~comprises~~ is fused to a heterologous polynucleotide sequence.

54. (previously presented) The isolated polynucleotide of claim 50, wherein said heterologous polynucleotide sequence encodes a polypeptide.

55. (previously presented) A method for making a recombinant vector comprising inserting the isolated polynucleotide of claim 50 into a vector.

56. (previously presented) A recombinant vector comprising the isolated polynucleotide of claim 50.

57. (previously presented) The recombinant vector of claim 50, wherein said polynucleotide is operably associated with a heterologous regulatory sequence that controls gene expression.

58. (previously presented) A recombinant host cell comprising the isolated polynucleotide of claim 50.

59. (previously presented) The recombinant host cell of claim 58, wherein said polynucleotide is operably associated with a heterologous regulatory sequence that controls gene expression.

60. (previously presented) A method for producing a polypeptide, comprising:
(a) culturing a recombinant cell comprising the isolated polynucleotide of claim 50 under conditions suitable to produce a polypeptide encoded by said polynucleotide; and
(b) recovering the polypeptide.

61. (canceled).

β₁ 62. (currently amended) An isolated polynucleotide ~~comprising~~ consisting of a nucleic acid sequence which hybridizes at 42°C in 5X SSC and 50% formamide, to the full length of a nucleic acid sequence selected from the group consisting of:

- (a) SEQ ID NO:65; and
- (b) the full complement of (a).

63. (previously presented) The isolated polynucleotide of claim 62, wherein said nucleic acid sequence is (a).

64. (previously presented) The isolated polynucleotide of claim 62, wherein said nucleic acid sequence is (b).

65. (currently amended) The isolated polynucleotide of claim [[62]] 62(b), wherein said polynucleotide ~~comprises~~ is fused to a heterologous polynucleotide sequence.

66. (previously presented) The isolated polynucleotide of claim 65, wherein said heterologous polynucleotide sequence encodes a polypeptide.

67. (currently amended) A method for making a recombinant vector comprising inserting the isolated polynucleotide of claim [[62]] 62(b) into a vector.

68. (currently amended) A recombinant vector comprising the isolated polynucleotide of claim [[62]] 62(b).

69. (previously presented) The recombinant vector of claim 68, wherein said polynucleotide is operably associated with a heterologous regulatory sequence that controls gene expression.

70. (currently amended) A recombinant host cell comprising the isolated polynucleotide of claim [[62]] 62(b).

B1 71. (previously presented) The recombinant host cell of claim 70, wherein said polynucleotide is operably associated with a heterologous regulatory sequence that controls gene expression.

72. (currently amended) A method for producing a polypeptide, comprising:
(a) culturing a recombinant cell comprising the isolated polynucleotide of claim [[62]] 62(b) under conditions suitable to produce a polypeptide encoded by said polynucleotide; and
(b) recovering the polypeptide.

73. (canceled).

74. (currently amended) An isolated polynucleotide ~~comprising~~ consisting of a nucleic acid molecule selected from the group consisting of:

- (a) SEQ ID NO:65; and
- (b) the full complement of (a).

75. (currently amended) The isolated polynucleotide of claim 74 which ~~comprises~~ is fused to a heterologous polynucleotide sequence.

76. (previously presented) A method for making a recombinant vector comprising inserting the isolated polynucleotide of claim 74 into a vector.

77. (previously presented) A recombinant vector comprising the isolated polynucleotide of claim 74.

78. (previously presented) A recombinant host cell comprising the isolated polynucleotide of claim 74.

79. (currently amended) An isolated polynucleotide ~~comprising~~ consisting of a nucleic acid sequence identical to, except for up to five nucleotide alterations per 100, selected from the group consisting of:

(a) SEQ ID NO:65; and

(b) the full complement of (a).

B1 80. (previously presented) The isolated polynucleotide of claim 79, wherein said nucleic acid sequence is (a).

81. (previously presented) The isolated polynucleotide of claim 79, wherein said nucleic acid sequence is (b).

82. (currently amended) The isolated polynucleotide of claim 79, wherein said polynucleotide ~~comprises~~ is fused to a heterologous polynucleotide sequence.

83. (previously presented) A method for making a recombinant vector comprising inserting the isolated polynucleotide of claim 79 into a vector.

84. (previously presented) A recombinant vector comprising the isolated polynucleotide of claim 79.

85. (previously presented) A recombinant host cell comprising the isolated polynucleotide of claim 79.

86 - 92 (canceled).
